

Date: Wednesday, 9/13/2006 4:29:58 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : BLADE
 Job Number : 28521
 Estimate Number : 10327
 P.O. Number : NIA Part Number : D2741
 This Issue : 9/13/2006 S.O. No. : NIA Drawing Number : D2741 REV C
 Prsht Rev. : NC Project Number : N/A
 First Issue : NIA Type : MACHINED PARTS Drawing Revision : C
 Previous Run : 27968 Material : NIA
 Due Date : 10/10/2006 Qty: 40 Um: Each
 Written By : [Signature]
 Checked & Approved By : [Signature]
 Comment : Est Rev: D 00.11.15 Removed P/O turning - in house
 processEC
 Est Rev: E 06-03-20 As Per Rev C
 JLM
 Est Rev: F 06.04.20 Added grinding after heat treating EC

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M4130NB0500X03000 4130 Bar 0.5 x 3.0"



Comment: Qty.: 1.2118 f(s)/Unit Total: 48.4722 f(s)
 4130 BAR 0.5 x 3.0"
 Material: 4130 steel bar 0.50" x 3.00"

Batch: M101952

ml 06/09/16

40

2.0 BAND SAW BAND SAW



Comment: BAND SAW
 Cut blanks 13.850" long +0.063" -0.000"

ml 06/09/16

40

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1
 1-Machine per folio FA108

En J.F. 06/09/20 (40)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 06/12/06
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 9/13/2006 4:29:58 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE

Job Number: 28521

Part Number: D2741

Job Number:



Seq. #:

Machine Or Operation:

Description :

4.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

En / J.F. 06/09/20 (40)

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

SD 06.09.20 (40)

6.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Deburr ✓

2-Bend per Dwg D2741

SP 06/10/19
FF 06/10/23
J.F. 06/09/20

(40)
(40)
(40)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06.10.24 (40)

8.0

PG

PURCHASING



Comment: PURCHASING

Issue P/O: 2325

Harden material as per Dwg D2741

Min. Ultimate Tensile Strength = 152 ksi (30-40 HRC)

Min. Yield Tensile Strength = 141 ksi

Test report or Certification required

CL 06/10/24 (40)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive and Inspect for transit damage

Ensure Test report or Certification attached

06/11/08 40
06/11/26 (40)

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06.11.13 (40)

11.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Grind off carbon deposits

a.m. 06/11/22 (40)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 9/13/2006 4:29:59 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE

Job Number: 28521

Part Number: D2741

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

FC 06 12 01 (40)

13.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

Pu 4/12/05 (40)

14.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 5+150

Pu 4/12/05 (40)

15.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

LD 06/12/06 (40)

Job Completion



C 06/12/06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

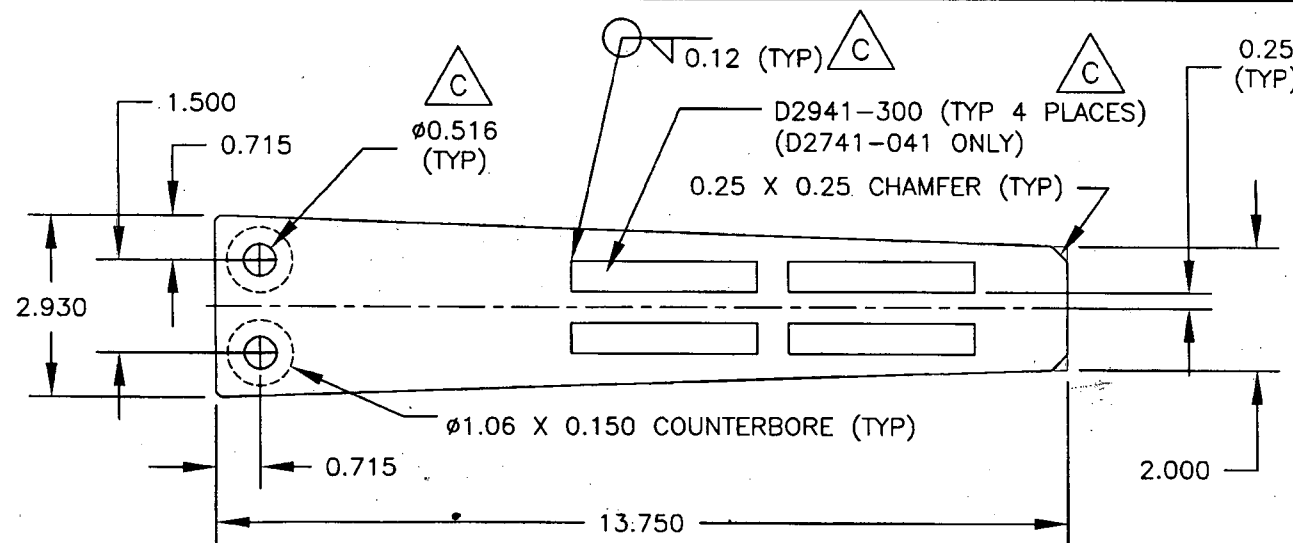
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

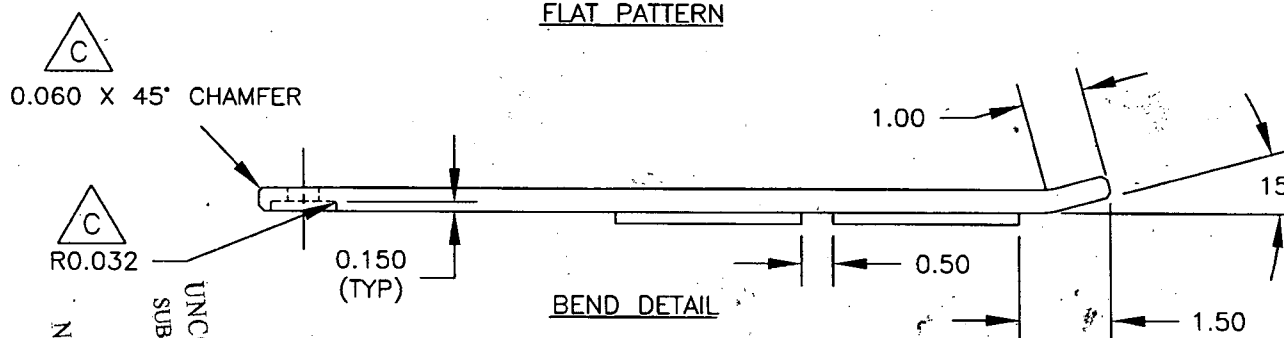
DART

RELEASED
06 02 07

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.
04	04	PORT HADLOCK, WA
CHECKED	APPROVED	DRAWING NO.
04	04	D2741
DATE		TITLE
06.01.12		BLADE
A	98.04.16	NEW ISSUE
B	98.09.01	CHANGE C'SINK TO C'BORE
C	06.01.12	LARGER HOLE, ADD RADIUS AND CHAMFER ADD -041/-043 OPTIONS
		SCALE
		1:3



FLAT PATTERN



BEND DETAIL

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 28521

D2741 BLADE

- 1) MATERIAL: AISI 4130 STEEL 0.375 THICK
MIN. ULTIMATE TENSILE STRENGTH = 152 ksi (34-40 HRC)
MIN. YIELD TENSILE STRENGTH = 141 ksi
- 2) FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES 0.030 TO 0.060
- 6) TO MAKE D2741-041, WELD D2941-300 (4) AS SHOWN ABOVE.
REMOVE POWDER COAT FROM SURFACE OF D2941-300
- 7) TO MAKE D2741-043, WELD 7560 HARDCOAT ROD INSTEAD OF D2941-300



RELEASE NOT

GST No. : R105468102

OAK 80698-1

HEAD OFFICE
1371 SPEERS ROAD, OAKVILLE, ONTARIO
CANADA L6L 2X5
TEL: (905) 827-4171 FAX: (905) 827-7489

2009 WYECROFT ROAD, UNIT B
OAKVILLE, ONTARIO
CANADA L6L 6J4
TEL: (905) 827-7377 FAX: (905) 827-1380

QUEBEC DIVISION
7450 RUE VÉRITÉ STREET, ST. LAURENT, QUÉBEC
CANADA H4S 1C5
TEL: (514) 334-4240 FAX: (514) 334-6269

11/06/2006

MM / DD / YYYY

PAGE : 1

1DAR01

BILL TO: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

SHIP TO: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

K6A 1K7

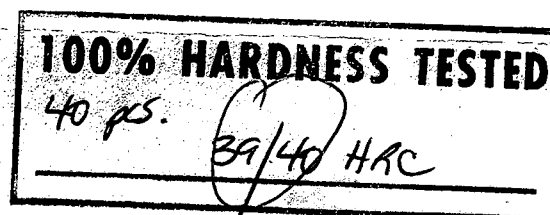
K6A 1K7

DATE SHIPPED	SHIP VIA	F.O.B.
11/06/2006		ORIGIN
CUSTOMER P/O No.	JOB No.	TERMS
PO00002325		COD

PART No.	DESCRIPTION	UOM	QTY ORD	QTY SHPD.	TEST RESULTS
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D2741 B28521 EA 40 40
BLADE

Process Specifications: Procedure: 4161
HARDENED PER DWG. D2741 TO 152 KSI MINIMUM
100% HARDNESS TESTED PER ASTM E-18
HRC 34-40
MATERIAL: 4130



06-11-13

I hereby certify that the material covered by this release note has been inspected and tested and conforms to all specifications relevant thereto in accordance with the conditions of the contract / or purchase order.

ON BEHALF OF VAC AERO INTERNATIONAL INC.

Sandra Freeman
Authorized Q.C. Inspector



VACUUM BRAZING · HEAT TREATING · SPECIAL PROCESSING · FURNACE EQUIPMENT
TURBINE COMPONENT OVERHAUL · PLASMA AND OTHER COATINGS

